THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte DANIEL A. JAPUNTICH et al.

_____

Appeal No. 1999-0274
Application No. 08/240,877[1]

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ON BRIEF

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Before CALVERT, COHEN, and NASE, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 18 to 25 and 27 to 31, which are all of the claims pending in this application.

We AFFIRM.

[1] Application for patent filed May 11, 1994.

BACKGROUND

The appellants' invention relates to a filtering face mask. An understanding of the invention can be derived from a reading of exemplary claim 18, which is reproduced in the opinion section below.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Farr	1,288,856	Dec. 24, 1918
Stelzner	1,867,478	July 12, 1932
Cover	2,320,770	June 1, 1943
McKim	3,191,618	June 29, 1965
Magidson et al. (Magidson)	4,873,972	Oct. 17, 1989

Claims 18 to 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cover in view of Stelzner, Farr and McKim.

Claims 24, 25 and 27 to 31 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cover in view of Stelzner, Farr and McKim as applied to the above claims, and further in view of Magidson.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the final rejection (Paper No. 20, mailed March 6, 1997) and the answer (Paper No. 27, mailed September 16, 1997) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 24, filed May 19, 1997) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

In the brief (p. 4), the appellants stated that the rejected claims will stand or fall together. Thus, in accordance with the appellants' grouping of claims and arguments provided, we need to review only the rejection of claim 18 to decide the appeal on the rejections under 35 U.S.C. § 103 set forth above.

Claim 18 reads as follows:

> A filtering face mask that comprises:
> (a) a mask body adapted to fit over the nose and mouth of a person; and
> (b) an exhalation valve attached to the mask body, which exhalation valve comprises:
> (1) a valve seat having (i) an orifice through which a fluid can pass, and (ii) a seal ridge circumscribing the orifice and having a concave curvature when viewed from a side elevation, the concave curvature of the seal ridge having an apex that is located upstream to fluid flow through the orifice relative to outer extremities of the concave curvature; and
> (2) a flexible flap having a first and second portions, the first portion being attached to the valve seat outside a region encompassed by the orifice, and the second portion assuming the concave curvature of the seal ridge when the valve is in a closed position and being free to be lifted from the seal ridge when a fluid is passing through the orifice.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Cover discloses a respirator. As shown in Figures 1-3, the respirator includes a respirator body 35 provided with an exhaust bulbous valve housing 37 and filter elements 54 and 55. The exhaust bulbous valve housing 37 includes exhaust openings 38, a valve seat 39 and valve 46. Cover teaches that the valve seat 39 may be concaved as at 43 and is provided with openings 44 having sharp flared edges 45 to provide a minimum of contact between the valve and the valve seat. Cover further discloses that the valve 46 may be attached to the seat by means of posts 47.

Stelzner discloses a nonreturn valve for breathing appliances. As shown in Figures 1-2, the valve includes an annular valve seat 1, a cross-stay 2 and a elastic diaphragm 3 secured to the cross-stay. Stelzner teaches (page 1, lines 16-22) that in the closed position the elastic diaphragm bears on the valve seat, thus fitting to the concave curvation of the valve seat instead of its originally flat shape.

Farr discloses a respirator. As shown in Figures 1, 2 and 8, the respirator includes in the language of claim 18 (a) a mask body (i.e., mask 1) adapted to fit over the nose and mouth of a person; and (b) an exhalation valve (i.e., frame 13 and

valve 14) attached to the mask body, which exhalation valve comprises: (1) a valve seat (i.e., frame 13) having (i) an orifice through which a fluid can pass, and (ii) a seal ridge circumscribing the orifice; and (2) a flexible flap (i.e., valve 14) having a first and second portions, the first portion being attached to the valve seat outside a region encompassed by the orifice (see Figures 2 and 8), and the second portion being free to be lifted from the seal ridge when a fluid is passing through the orifice.

McKim discloses a curved seat reed valve. As shown in Figures 1-2, the curved seat reed valve includes (1) a curved seat 18 (i.e., a valve seat) having (i) an orifice through which a fluid can pass, and (ii) a seal ridge circumscribing the orifice and having a concave curvature when viewed from a side elevation, the concave curvature of the seal ridge having an apex that is located upstream to fluid flow through the orifice relative to outer extremities of the concave curvature; and (2) a valve reed 18 (i.e., a flexible flap) having a first and second portions, the first portion (i.e., at mounting bar 15) being attached to the valve seat outside a region encompassed by the orifice, and the second portion assuming the concave curvature of the seal ridge

when the valve is in a closed position and being free to be lifted from the seal ridge when a fluid is passing through the orifice. McKim teaches (column 1, line 63, to column 2, line 2) that the curvature of the seat 18 conforms to the normally flexed condition of the valve reed 14 when the latter is flexed laterally from its normally straight position and that this enables the valve reed to seat quickly, effectively, and without bounce after each opening thereof. McKim also discloses (column 1, lines 8-9) that reed valves are widely used in industry where a light weight, quick acting, demand type of valve is desired.

After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of Cover and claim 18, it is our opinion that the only possible difference is the limitation that the flexible flap has a first portion "attached to the valve seat outside a region encompassed by the orifice."

In applying the above-noted test for obviousness, we conclude that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cover's valve seat 39 to contain a single opening/orifice, the suggestion for the modification being based upon the applied teachings that a single opening/orifice (e.g., Farr, McKim's Figures 1-2) or multiple openings/orifices (e.g., Cover, McKim's Figures 4-5) are known alternative designs. We additionally conclude that it would have been further obvious to one of ordinary skill in the art at the time the invention was made to have modified Cover's valve 46 to be attached to the modified valve seat outside a region encompassed by the single opening/orifice as suggested by the teachings of McKim
to permit the valve to seat quickly, effectively, and without bounce after each opening thereof.

The appellants' argument (brief, pp. 4-5) is unpersuasive as to the patentability of claim 18 for the following reasons.

First, the appellants have argued deficiencies of each reference on an individual basis, however, it is well settled that nonobviousness cannot be established by attacking the references

individually when the rejection is predicated upon a combination of prior art disclosures. See In re Merck & Co. Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

Second, the appellants have argued that there is no motivation to have combined the various teachings of the applied prior art. We do not agree. When it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or motivation in the prior art to make the selection made by the appellants. However, the extent to which such suggestion must be explicit in, or may be fairly inferred from, the references, is decided on the facts of each case, in light of the prior art and its relationship to the appellants' invention. In this case, we have concluded for the reasons set forth above that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have arrived at the claimed invention from the teachings of the applied prior art.

For the reasons stated above, the decision of the examiner to reject claim 18, and claims 19 to 25 and 27 to 31 which the

appellants have grouped with claim 18, under 35 U.S.C. § 103 is affirmed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 18 to 25 and 27 to 31 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

IAN A. CALVERT Administrative Patent Judge	)
IRWIN CHARLES COHEN Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

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